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A New *Trixoscelis* Species and other Material from Spain (Diptera: Trixoscelididae)

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With 6 figures

Summary

A new trixoscelidid species, *Trixoscelis sabinaevae* **sp. n.**, is described from Spain. Material of *Trixoscelis puncticornis* (Becker, 1907) is recorded from the Canary Islands, and a short description of this species is given.

Zusammenfassung

Eine neue Trixoscelididae-Art, *Trixoscelis sabinaevae* **sp. n.**, aus Spanien wird beschrieben. Material von *Trixoscelis puncticornis* (Becker, 1907) von den Kanarischen Inseln wird dokumentiert und eine kurze Beschreibung dieser Art gegeben.

Resumen

Se describe una especie nueva de Trixoscelididae, *Trixoscelis sabinaevae* **sp. n.**, de España. Además se cita y describe brevemente *Trixoscelis puncticornis* (Becker, 1907) en base a material proveniente de las Islas Canarias.

1. Introduction

The Diptera-material has been collected by Mr. Javier Blasco-Zumeta (Pina de Ebro) in a very arid region of the northeast of Spain called Monegros, more precisely in a zone named Retuerta de Pina (Zaragoza, Pina de Ebro), contained a new species of *Trixoscelis* Rondani, 1856. The description of the new species is part of a series of publications on Spanish Trixoscelididae (Carles-Tolrá, 1990, 1992, in press).

2. *Trixoscelis sabinaevae* sp. n.

Holotype: ♂, Spain, Province Zaragoza, Pina de Ebro (Retuerta de Pina), 20. 6. 1991, Malaise trap; J. Blasco-Zumeta leg.

Paratypes: 1 ♀, with the same data as holotype. – 1 ♂, 10. 6. 1989 (sweeping on *Carduus bourgeanus*); – 3 ♀♀, 8. 7. 1991 (light lamp); – 4 ♂♂ 2 ♀♀, 10. 5. 1992 (trap with pig's liver); – 1 ♂ 1 ♀, 10. 5. 1992 (Wilkening trap); – 2 ♂♂, 22. 5. 1992 (Wilkening trap); – 1 ♂ 5 ♀♀, 25. 5. 1992 (Wilkening trap); – 1 ♂, 10. 6. 1992 (Wilkening trap); – 1 ♂ 3 ♀♀,

26. 6. 1992 (trap with pig's liver); – 17 ♂♂ 4 ♀♀, 8. 7. 1992 (trap with pig's liver); – 2 ♂♂ 1 ♀, 23. 7. 1992 (sweeping on *Salsola vermiculata*); – 1 ♂ 2 ♀♀, 25. 7. 1992 (Wilkening trap); – 4 ♂♂ 3 ♀♀, 25. 7. 1992 (pitfall trap with vinegar); – 5 ♂♂ 9♀♀, 25. 7. 1992 (trap with dead chicken); – 1 ♂, 13. 8. 1992 (trap with pig's liver); – 1 ♀, 13. 8. 1992 (pitfall trap with vinegar); – 2 ♂♂, 2 ♀♀, 13. 8. 1992 (Wilkening trap); – 1 ♂, 28. 8. 1992 (trap with pig's liver); all paratypes J. Blasco-Zumeta leg. – Type material deposited in the author's collection, except 1 ♂ and 1 ♀ paratypes deposited in the collector's collection and 2 ♂♂ and 2 ♀♀ paratypes in the Staatliches Museum für Naturkunde Stuttgart.

Male. Head: Face, gena and palpus yellow whitish. Frons, parafacial and postgena orange. Frons blackish between ocellar triangle and orbites. Frontal triangle, vertex and orbites grey. Occiput grey dorsally and blackish ventrally. Antenna: First and second joints brownish, third joint brown to blackish (inner side basally and around arista orange); arista brown, pubescent. Brown spot between base of antenna and margin of eye absent. Chaetotaxy: 2ors, oc, vte, vti, pvt convergent, vi.

Thorax: Mesonotum grey, whitish dusted, with 5 narrow brownish longitudinal stripes; 1 median stripe (as wide as separation between two median rows of acrostichals), 1 paired stripe (as wide as median stripe) along the dorsocentral rows and 1 narrow less distinct paired stripe along the presutural, supraalar and postalar rows. Mesopleura grey, brownish dorsally and posteriorly. Sternopleura grey. Scutellum brownish. Chaetotaxy: 2+3dc, ac in 4 irregular rows, prst, sa, pa, 2sc, 1mp, 2st.

Fore leg: Coxa and trochanter yellowish; femur brown, lighter internobasally; tibia yellow-orange, brownish apically; tarsus brownish, dusted grey. Mid leg: Yellow-orange. Hind leg: Yellow-orange; coxa grey; tarsus brownish, its first joint somewhat dilated.

Wing: Uniformly shadowed, brown along costal margin (brownish in a few specimens). Longitudinal veins brown and distinctly bordered with brown. tp slightly (very slightly in a few specimens) bordered with brown. Haltere pale yellow-whitish.

Abdomen: Tergites brown, laterally grey, somewhat shiny. Sternite 5 with short very dense posteromedian bristles (bristles of previous sternites longer and less dense).

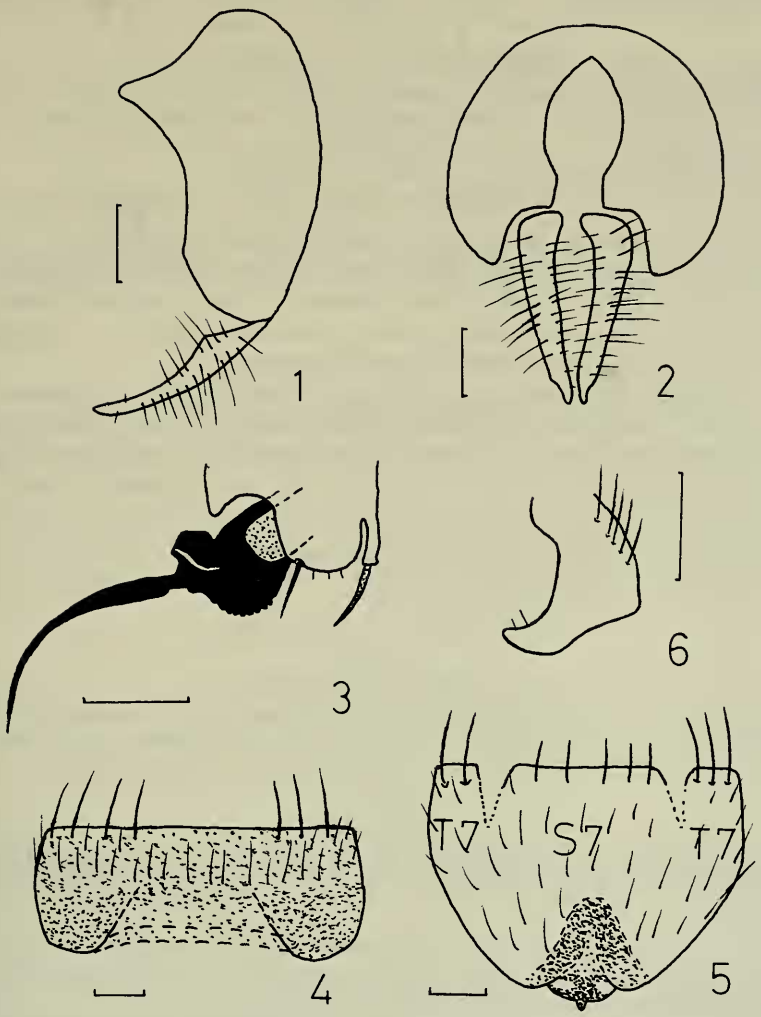
Male genitalia: Epandrium (Figs. 1–2) big, haired. Surstylus (Figs. 1–2) long, curved, triangular, pointed, dilated basally, long haired, surstyli close to each other. Gonite (Fig. 3) with a strong curved spine and 1 strong bristle, some minute hairs also present. Aedeagus (Fig. 3) black, long, filiform, curved downwards, dilated basally, its base serrated ventrally.

Female. Fore leg: Coxa and trochanter yellowish; femur dark brown, lighter basally; tibia yellow, darkened apically; tarsus brown. Mid and hind legs yellowish. Remaining characters as in the male.

Female genitalia: Tergite 7 (Fig. 4) concave and desclerotized anteriorly, haired posteriorly, with posterolateral bristles. Tergite 7 (T7) and sternite 7 (S7) incompletely fused (Fig. 5). Sternite 7 (Fig. 5) very large, twice as long as tergite 7, haired, trilobulated and pointed anteriorly, with some posterior bristles and darkened anteriorly. 1+2 spermathecae.

Total body length: Males: 2.2–3.5 mm; females: 2.5–3.9 mm.

Discussion: According to Hackman's (1970) key *Trixoscelis sabinaevae* sp. n. keys out to *T. puncticornis* (Becker, 1907) (Tunisia, Azores and Canary Islands). Both species clearly differ in morphological characters (compare the brief description of *T. puncticornis* below).



Figs. 1–5. *Trixoscelis sabinaevae* **sp. n.** – 1. Epandrium and surstylus in lateral view (epandrial hairs not drawn); – 2. the same in ventral view; – 3. aedeagus and gonite in lateral view; – 4. female tergite 7 in dorsal view; – 5. female sternite 7 (S 7) and tergite 7 (T7) in ventral view.

Fig. 6. *Trixoscelis puncticornis* (Becker); surstylus in ventral view. – Scale bars: 0.1 mm.

Biology: The specimens were collected by means of various collecting methods: trap with pig's liver (33 specimens), Wilkening trap (18 specimens), trap with dead chicken (14 specimens), pitfall trap with vinegar (8 specimens), sweeping on vegetation (4 specimens), light trap (3 specimens) and Malaise trap (2 specimens). Although its biology is unknown, we can suppose that *Trixoscelis sabinaevae* could be a saprophagous species.

Distribution: Hitherto known only from northeastern Spain.

Remarks: The new species is dedicated to the two daughters of the collector (Sabina and Eva).

3. *Trixoscelis puncticornis* (Becker, 1907)

Material: Dr. M. Báez kindly sent to me 2 male and 2 female specimens of *Trixoscelis* from Fuerteventura (Canary Islands). According to the keys of Czerny (1927) and Hackman (1970), I have identified them as *T. puncticornis* (Becker). Canary Islands, Fuerteventura: 1 ♀, Betancuria, 10. 2. 1980; – 1 ♂, Tetir, 18. 2. 1980; – 1 ♂ 1 ♀, Villaverde, 21. 2. 1980; M. Báez leg. – Material deposited in the author's collection.

Description: Brown spot between base of antenna and margin of eye present. Antenna blackish, with an orange spot around the base of the arista.

Mesonotum with only 3 longitudinal stripes: 1 median dark stripe brown (as wide as or slightly wider than the width of the 4 acrostichal rows), and with 1 paired stripe along the presutural, supraalar and postalar rows (darker than in *T. sabinaevae*).

Femora and tarsi dark brown, tibiae somewhat orange.

Wing: Darkened zone along tp much more visible than in *T. sabinaevae*.

Male genitalia. Surstylus (Fig. 6) foot-shaped, wide, with some minute preapical and posterolateral long hairs. Gonite with 5–6 long hairs, spine absent. Aedeagus very small and short (subequal to the longest hairs of the gonite), slightly curved upwards.

Female genitalia. Tergite 7 and sternite 7 completely fused. Tergite 7 very short, one third or less as long as sternite 7, with 6–7 long bristles along all the posterior margin.

4. Acknowledgements

I am very grateful to Mr. Javier Blasco-Zumeta (Zaragoza, Pina de Ebro) for the shipment of that very interesting dipterological material. Also many thanks are due to Dr. Marcos Báez (Canary Islands) for the shipment of dipterological material.

5. References

Carles-Tolrá, M. (1990): Contribución al estudio de los Diptera, Cyclorrhapha, Acalyptratae (Insecta) de España peninsular. – 621 pp., Tesis Doctoral, Facultad de Biología; Barcelona.

– (1992): New and interesting records of Diptera Acalyptrata from Spain. Part II: Heleomyzidae, Trixoscelididae, Chyromyidae, Curtonotidae, Camillidae, Diastatidae and Campichoetidae. – Graellsia, **48**: 19–24; Madrid.

– (in press): *Trixoscelis curvata* sp. n.: a new trixoscelidid species from Spain (Diptera). – Annln naturhist. Mus. Wien (Serie B), **94/95**; Wien.

Czerny, L. (1927): Trichoscelidae. – *In*: Lindner, E. (ed.): Die Fliegen der palaearktischen Region, Teil **53**b, 5: 46–51; Stuttgart.

Hackman, W. (1970): Trixoscelidae (Diptera) from southern Spain and descriptions of a new *Trixoscelis* species from northern Europe. – Ent. scand., 1: 127–134; Copenhagen.

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